

CLAIMS

1. A catalyst comprising a γ -alumina support coated with a first layer containing magnesium and, on the first layer, a second layer containing copper and, optionally, lithium.
2. A catalyst as claimed in claim 1 containing, by weight, from 0.1 to 5% magnesium, from 2 to 10% copper, and from 0 to 5% lithium.
3. A catalyst as claimed in claim 2 containing, by weight, from 0.1 to 2% magnesium, from 2 to 8% copper, and from 0 to 1% lithium.
4. A catalyst as claimed in claim 3 containing, by weight, 0.5 to 1.5% magnesium, from 3 to 6% copper, and from 0.1 to 0.3% lithium.
5. A catalyst as claimed in any of claims 1 to 4 wherein the γ -alumina has a surface area of from 50 to 220 m²/g and an average particle size in the range 40 to 60 μ m.
6. A catalyst as claimed in claim 5 wherein the γ -alumina has a surface area of from 80 to 180m²/g.
7. A process for preparing a catalyst which comprises impregnating γ -alumina with a solution containing a magnesium salt, drying the product, and impregnating the product with a solution containing a copper salt and, optionally, a lithium salt.
8. A process as claimed in claim 7 wherein the salts are the chloride salts.
9. A catalyst produced by the process of claim 7 or 8.
10. A process for the catalytic gas phase oxychlorination of ethylene which comprises reacting ethylene, hydrogen chloride and a source of oxygen in the presence of a catalyst as claimed in any of claims 1 to 6 and 9.

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CLAIMS

1. A process for preparing a catalyst which comprises impregnating
5 γ -alumina with a solution containing a magnesium salt, drying the
product, and impregnating the product with a solution containing a copper
salt and, optionally, a lithium salt.
2. A process as claimed in claim 1 wherein the salts are the chloride
10 salts.
3. A catalyst produced by the process of claim 1 or 2.
4. A catalyst as claimed in claim 3 containing, by weight,
15 from 0.1 to 5% magnesium, from 2 to 10% copper, and from 0 to 5% lithium.
5. A catalyst as claimed in claim 4 containing, by weight,
from 0.1 to 2% magnesium, from 2 to 8% copper, and from 0 to 1% lithium.
- 20 6. A catalyst as claimed in claim 5 containing, by weight, 0.5
to 1.5% magnesium, from 3 to 6% copper, and from 0.1 to 0.3% lithium.
7. A catalyst as claimed in any of claims 3 to 6 wherein the γ -alumina
25 has a surface area of from 50 to 220 m²/g and an average particle size in
the range 40 to 60 μ m.
8. A catalyst as claimed in claim 7 wherein the γ -alumina has a
surface area of from 80 to 180m²/g.
- 30 9. A process for the catalytic gas phase oxychlorination of ethylene
which comprises reacting ethylene, hydrogen chloride and a source of
oxygen in the presence of a catalyst as claimed in any of claims 3 to 8.

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